

## CLAIMS

### WE CLAIM:

1. A nano-composite reinforced polymer including a polymer and one of carbon nano-tubes, a nano clay or nano-ceramic fibers formed into a super balloon for medical applications.
2. A nano-tube reinforced polymer including one of nylon or 12, PET and carbon nano-tubes formed into a super balloon for medical applications.
3. A balloon catheter comprising a plastic tubing, a balloon fused to one end portion of said tubing, and said balloon being made of a carbon nano-tube reinforced polymer.
4. The balloon catheter of claim 3 wherein said balloon comprises between 99.75 and 90.00% by weight polymer and between 0.25 and 10 by weight carbon nano-tubes.
5. The balloon catheter of claim 5 wherein said balloon comprises approximately 3% by weight carbon nano-tubes.
6. The balloon catheter of claim 4 wherein said polymer is one of nylon 12 or PET.
7. A balloon catheter comprising a plastic tubing, a balloon fused to one end portion of said tubing, and said balloon being made of a nano-ceramic fiber reinforced polymer.
8. The balloon catheter of claim 7 wherein said balloon comprises between 99.75 and 90.00% by weight polymer and between 0.025 and 10.00% by weight nano-ceramic fibers.
9. The balloon catheter of claim 8 wherein said balloon comprises approximately 3% by weight nano-ceramic fibers.
10. The balloon catheter of claim 7 wherein said polymer is one of nylon 12 or PET.
11. The balloon catheter of claim 7 wherein said nano-ceramic fibers are alumina fibers.
12. A balloon catheter comprising a plastic tubing, a balloon fused to one end portion of said tubing, and said balloon being made of a nano-clay reinforced polymer.
13. The balloon catheter of claim 12 wherein said balloon comprises between 99.75 and 90.00% by weight polymer and between 0.025 and 10.00% by

nano-clay.

14. The balloon catheter of claim 13 wherein said balloon comprises approximately 3% by weight nano-clay.
15. The balloon catheter of claim 12 wherein said polymer is one of nylon.